

372/23, 24

Final
(see by amendment)

Patent
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AMENDMENTS

IN THE CLAIMS:

Please cancel claims 2, 9 and 15.

1 1. (Currently Amended) A multiple wavelength output light source,
2 comprising:
3 a laser device having a plurality of output wavelengths;
4 a demultiplexer optically coupled to the laser device, the demultiplexer for
5 separating the plurality of output wavelengths; and
6 a plurality of modulators optically coupled to the demultiplexer, the
7 modulators associated with and configured to modulate each wavelength, wherein the
8 laser device, the plurality of modulators and the demultiplexer are fabricated on one } 2
9 substrate and comprise one module.

1 2. (Canceled)

1 3. (Original) The light source of claim 1, wherein the plurality of output
2 wavelengths represents the output spectrum of the laser device.

1 4. (Original) The light source of claim 1, further comprising an optical
2 filter configured to receive the plurality of output wavelengths and modify each
3 wavelength to a predetermined profile.

1 5. (Original) The light source of claim 1, wherein the laser device is a
2 Fabry-Perot laser.

1 6. (Original) The light source of claim 1, further comprising a combining
2 device configured to combine each of the plurality of modulated wavelengths onto a
3 single optical fiber.

1 7. (Original) The light source of claim 1, wherein the laser device has a
2 spectral distribution including distinct peaks, each of the output wavelengths
3 corresponding to a different one of the peaks.

1 8. (Currently Amended) A method for forming a broad spectrum
2 modulated laser output, the method comprising:

3 providing a laser device having a plurality of output wavelengths;

4 separating the plurality of output wavelengths; ~~and~~

5 modulating each of the plurality of output wavelengths; and

6 forming the laser device and performing the modulating step and the } cl 9

7 separating step on one substrate.

1 9. (Canceled)

1 10. (Original) The method of claim 8, wherein the plurality of output
2 wavelengths represents the output spectrum of the laser device.

1 11. (Original) The method of claim 8, further comprising modifying each
2 wavelength to a predetermined profile.

1 12. (Original) The method of claim 8, wherein the laser device is a Fabry-
2 Perot laser.

1 13. (Original) The method of claim 8, further comprising combining each
2 of the plurality of modulated output wavelengths onto a single optical fiber.

1 14. (Currently Amended) A method for forming a broad spectrum
2 modulated laser output, the method comprising the steps of:

3 providing a Fabry-Perot laser device having a plurality of outputs, each output
4 at a different spectral location;

5 separating the plurality of outputs; and

6 modulating each of the plurality of outputs with communication information
7 resulting in a plurality of modulated outputs; and

8 forming the Fabry-Perot laser device and performing the modulating step and } cl 15
9 the separating step on one substrate.

1 15. (Canceled)

1 16. (Original) The method of claim 14, wherein the plurality of output
2 wavelengths represents the output spectrum of the laser device.

1 17. (Original) The method of claim 14, further comprising modifying each
2 wavelength to a predetermined profile.

1 18. (Original) The method of claim 14, further comprising combining each
2 of the plurality of modulated outputs onto a single optical fiber.

1 19. (Currently Amended) An optical system comprising:
2 a laser that outputs plural wavelengths; and
3 modulator means optically coupled to the laser, the modulator means for
4 modulating each of the wavelengths independently, wherein the laser and the
5 modulator means are fabricated on one substrate and comprise one module.

1 20. (Original) The apparatus of claim 19, further comprising separator
2 means for spatially separating the plural wavelengths upstream of their modulation by
3 the modulator means.

1 21. (Original) The apparatus of claim 20, further comprising combiner
2 means for spatially combining the wavelengths as modulated by the modulator means.

1 22. (Original) The apparatus of claim 19, wherein the laser has a spectral
2 distribution including distinct peaks, each of the wavelengths corresponding to a
3 different one of the peaks.

1 23. (Currently Amended) An optical method comprising:
2 operating a laser to provide an output characterized by plural wavelengths; ~~and~~
3 modulating the plural wavelengths independently; and
4 forming the laser device and performing the modulating step on one substrate.

1 24. (Original) The method of claim 23, further comprising separating the
2 plural wavelengths upstream of the modulating.

1 25. (Original) The method of claim 24, further comprising combining the
2 wavelengths downstream of the modulating.

1 26. (Original) The method of claim 23, wherein the wavelengths
2 correspond to distinct peaks in the spectral distribution of the output of the laser.